

Chapter One: Overweight and Obesity by Age

Overweight and obesity transcends gender, age, and racial and ethnic groups. Today the number of children, adolescents, and adults who are obese is at a record high, with increases in obesity documented for children (kindergarten-eighth grade), adolescents (high school), and adults (18 years and older).

children

The number of overweight Utah children increased dramatically from 1993 to 2002.

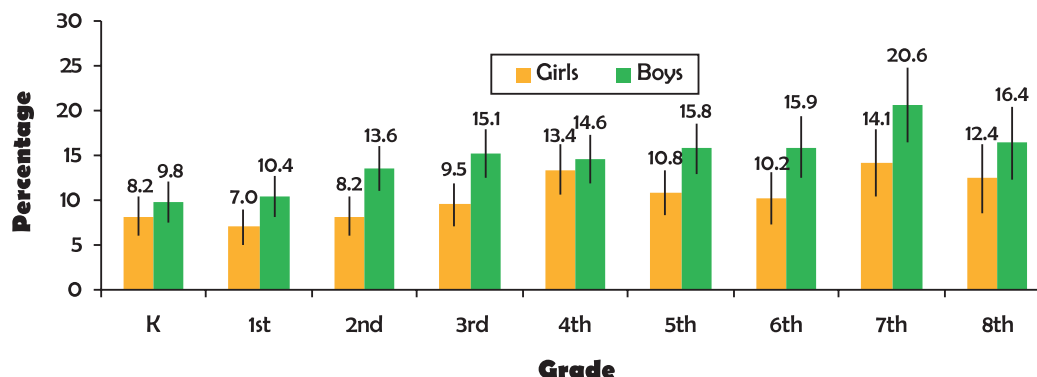
In Utah in 2002, an estimated 25.5 percent of kindergarten-eighth grade students were overweight or at risk of becoming overweight. (See Appendix A for definitions of overweight and at risk of becoming overweight.) More boys were overweight or at risk of becoming overweight than were girls, 27.9 percent compared to 22.9 percent. More boys were overweight than girls, 14.1 percent compared to 10.0 percent. There was no significant difference between urban and rural schools.⁸

From 1993 to 2002 the number of overweight third grade boys increased by 119 percent (6.9 percent in 1993 to

15.1 percent in 2002), and the number of overweight third grade girls increased by 40 percent (6.8 percent in 1993 to 9.5 percent in 2002).⁸ If this trend continues, one-third of all third grade boys could be overweight by the year 2010.⁹ At the national level, a similar trend has been observed. In 1963-65, four percent of children 6-11 years of age were overweight compared to 16 percent in 1999-2002.⁹

Additionally, it appears that the percentage of overweight boys increases with increasing grade, with less than 10 percent of kindergarten boys, and approximately 15 percent of third to sixth grade boys, being overweight. This trend is not seen with girls. (See Figure 1.)

Figure 1. Percentage of Utah Children Who Were Overweight* by Grade and Gender, Utah 2002



Source: Utah Department of Health, Bureau of Health Promotion, Heart Disease and Stroke Prevention Program. (2002) Height/Weight Measurement.

Overweight is defined as \geq the gender- and age-specific 95th percentile of BMI based on the revised Centers for Disease Control and Prevention Growth Charts for the U.S. (See Appendix A.)

adolescents

The percentage of overweight Utah high school students appears to be increasing over time.

According to the 2003 National Youth Risk Behavior Survey (YRBS), approximately 1.9 million public high school students report being overweight or at risk of becoming overweight. (See Appendix A for definitions of overweight and at risk of becoming overweight.) In Utah approximately 36,500 public high school students report being overweight or at risk of becoming overweight. The number of overweight Utah public high school students (14,000 students) is enough to fill 410 classrooms.

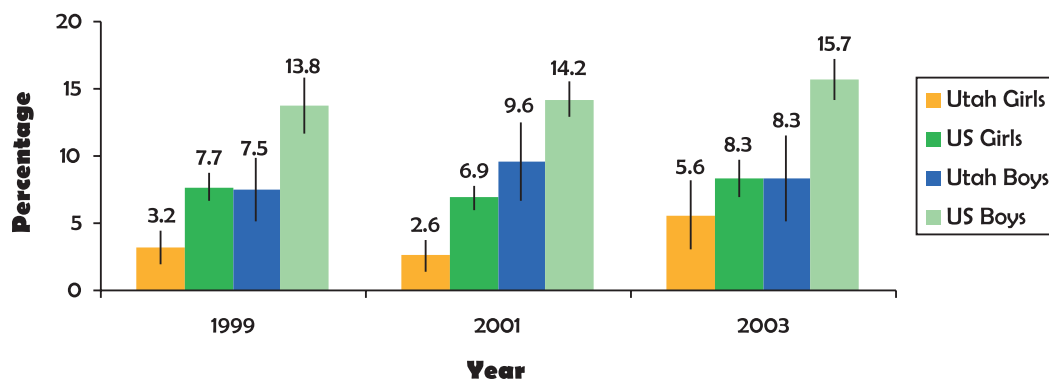
In 1999, 9.1 percent of Utah public high school students (9.4 percent of boys and 8.7 percent of girls) were at risk for becoming overweight compared to 14.3 percent nationally (14.8 percent of boys and 13.8 percent of girls). In 2003 both the Utah and national numbers

appeared to increase; 11.3 percent for Utah and 14.8 percent nationally. Once again, a greater percentage of boys was at risk of becoming overweight (12.8 percent Utah and 15.2 percent US), compared to girls (9.7 percent Utah and 14.4 percent US).

In 1999, 5.4 percent of Utah public high school students were overweight, and boys were more than twice as likely as girls to be overweight (7.5 percent compared to 3.2 percent). (See Figure 2.) In 2003, these rates increased to 7.0 percent for all students (8.3 percent for boys, and 5.6 percent for girls).³ However, small sample sizes make it impossible to determine if the change from 1999 to 2003 represents a statistically significant increase in the percentage of overweight high school students. What is evident is that the number of overweight high school students is not decreasing.

Figure 2.

Percentage of High School Students Who Were Overweight by Gender, Utah and US 1999, 2001, and 2003



Source: YRBS 1999, 2001, and 2003.

Overweight is defined as \geq the gender- and age-specific 95th percentile of BMI based on the revised Centers for Disease Control Growth Charts for the U.S., and at risk of becoming overweight is defined \geq 85th percentile and $<$ 95th percentile for BMI by age and sex based on the same growth charts. See Appendix A.

According to national data from 2003, Hispanic/Latino students were more likely to be overweight than white, non-Hispanic/Latino students (16.4 percent versus 10.4 percent, respectively). In Utah, in 2003, there was not a statistically significant difference in rates of overweight by race/ethnicity between students in grades nine through twelve (6.7 percent for white, non-Hispanic/Latino students compared to 11.2 percent for Hispanic/Latino students). However, this finding does not mean that a real difference does not exist. Small numbers of minority students in the study may make the results less precise.¹⁰

Excess weight affects children's and adolescents' quality of life.

Quality of life for children and adolescents includes how they function physically, emotionally, socially, and in school.¹¹ In addition to increased frequencies of high cholesterol, high blood pressure, and type 2 diabetes among overweight children and children at risk for becoming overweight, psychological and social consequences are of particular concern. Overweight children and children at risk for becoming overweight suffer early and systematic discrimination; it is one of the least socially acceptable conditions in childhood.^{11, 12} One study showed that overweight adolescents have fewer and less equal friendships than adolescents at ideal weight. In addition, they were less central to their social groups.¹³ There is also evidence that overweight children and

adolescents are four times more likely to report difficulties in school.¹¹

Overweight in adolescents is widely known to be associated with low self-esteem and depression. Results from the National Longitudinal Survey of Youth indicate that early adolescence is a critical period for development of low self-esteem in overweight children.¹⁴ Adolescents who are teased because of their weight may also be more likely to think about or commit suicide. (See Chapter 2, Violence and Injury Prevention.)

Children and adolescents who are overweight or at risk of becoming overweight have a greater likelihood of becoming obese or overweight adults.

Not only has there been an increase in the number of overweight children and adolescents, but studies have also shown that excess weight acquired during childhood or adolescence often persists into adulthood. In fact, overweight adolescents have a 70 percent chance of becoming overweight or obese adults. The rate increases to 80 percent if one or more parents are overweight or obese.¹⁵ A study demonstrated that the risk of being an obese adult was 1.3 times higher for those who were overweight at one or two years of age compared with those who were not overweight at that age. The risk for being an obese adult is 17.5 times higher for those who are overweight at 15 to 17 years of age.¹⁶

adults

The percentage of obese adults, both nationally and in Utah, increases annually.

In 1993, only 15 states reported obesity rates greater than the Healthy People 2010 Objective of 15 percent. In 2003, all 50 states had rates greater than 15 percent.¹⁷

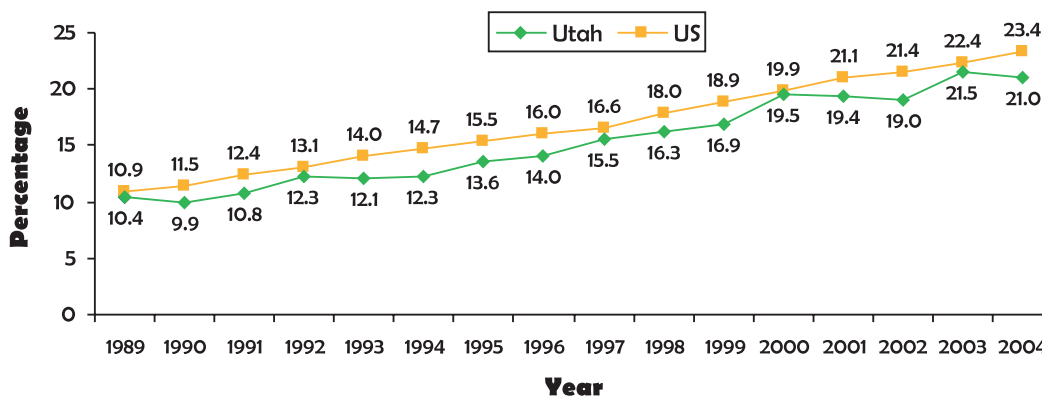
The age-adjusted national rate of obesity increased from 11.9 percent in 1989 to 23.4 percent in 2004. By comparison, the age-adjusted proportion of Utah adults who were obese increased from 10.4 percent in 1989 to 21.0 percent in

2004. (See Figure 3.) This means that an additional 10,000 Utahns become obese annually, or about 27 Utahns each day became obese.¹⁸ Clearly, Utah is not far behind the national trend in obesity rates.

In 2004, in Utah, 67.1 percent of adult males and 49.5 percent of adult females reported being overweight or obese. This trend of more males being overweight or obese compared to females has remained constant since 1989. (See Figure 4.) If this continues, it is estimated that 73.5 percent of males and 55.4 percent of females

Figure 3.

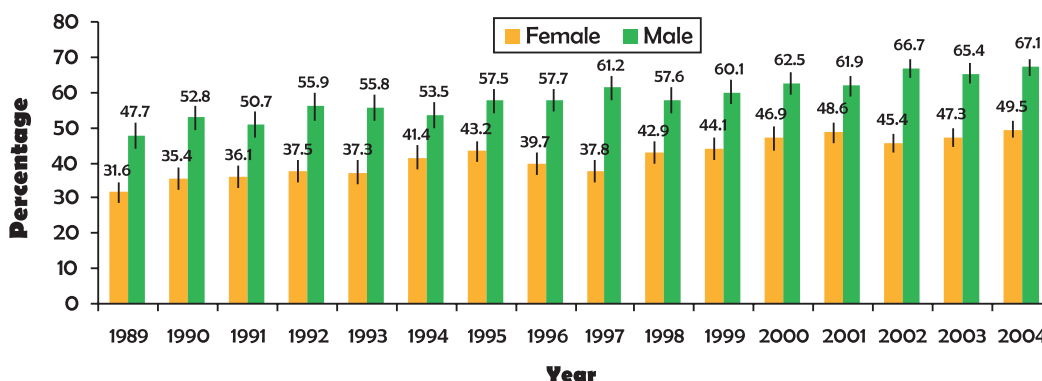
Percentage of Obese Adults, Utah and US 1989-2004



Source: BRFSS 1989 to 2004; Age-adjusted to 2000 population. Obese is defined as a BMI of ≥ 30 .

Figure 4.

Percentage of Overweight or Obese Adults by Gender, Utah 1989-2004



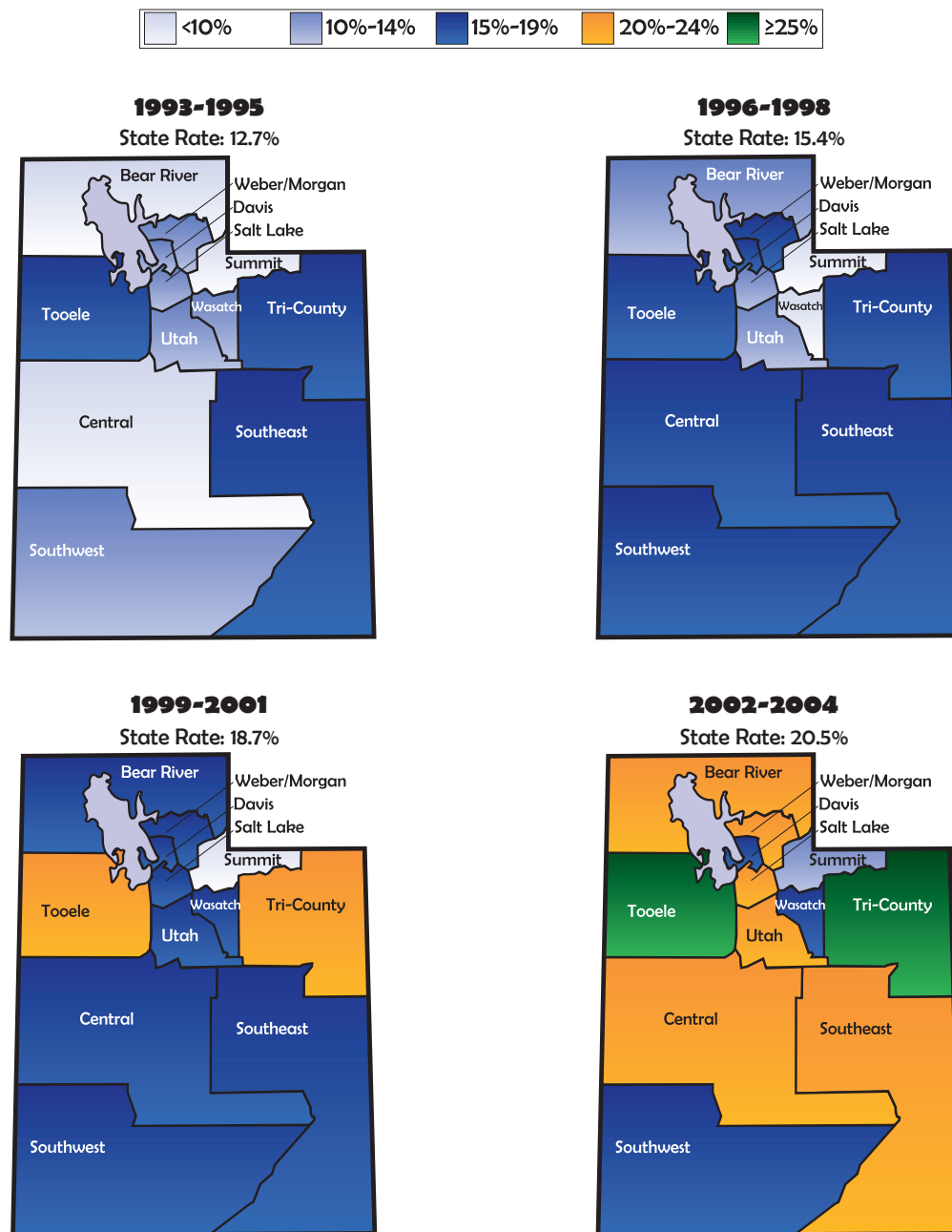
Source: Utah BRFSS 1989 to 2004; Age-adjusted to the 2000 population. Overweight or obese is defined as a BMI of ≥ 25 .

in Utah will be overweight or obese by 2010.¹⁹ In Utah in 2004, the highest rate of overweight or obese people was reported for males 50-64 years of age (78.5 percent), and the lowest rate of overweight or obese was reported for females 18-34 years of age (39.0 percent).

For 2002-2004 combined data, the Utah local health district with the highest rate of overweight or obese people was TriCounty (64.5 percent) and the local health district with the lowest rate of overweight or obese people was Summit (43.9 percent).² Data from 1993-1995

Figure 5.

Obesity Trends Among Adults, Utah 1993-2004



Source: Utah BRFSS 1993 to 2004; Age-adjusted to 2000 population.
Obese is defined as a BMI of ≥ 30 .

showed that no Utah local health district had obesity rates greater than or equal to 20 percent. Data from 2002-2004 showed that 8 of the 12 local health districts had obesity rates greater than or equal to 20 percent, including two greater than or equal to 25 percent. (See Figure 5.)

It should be noted that in studies of self-reported height and weight, overweight subjects tend to underestimate their weight, and all participants tend to overestimate their height.²⁰ Therefore, these results may be conservative and underestimate the true prevalence of obesity.

Excess weight affects adults' quality of life.

In 2004, 17.6 percent of obese Utahns reported fair or poor health status compared to 8.9 percent of those at ideal weight. Additionally, more obese Utahns reported engaging in no physical activity compared to Utahns at ideal weight (22.0 percent for obese and 13.6 percent for ideal weight) (BRFSS 2004).

Overweight and obese people may have co-morbid conditions such as diabetes, hypertension, high cholesterol, coronary heart disease, stroke, osteoporosis, sleep apnea, respiratory problems, and endometrial, breast, prostate, and colon cancers which could effect quality of life. (See Chapter 2.)

Some data also show that obese people don't succeed in business as well as those with a normal weight:

“Studies on employment have shown hiring prejudice in laboratory studies. Subjects report being less inclined to hire an overweight person than a thin person, even with identical qualifications. Individuals make negative inferences about obese persons in the workplace, feeling that such people are less competent. One might expect these attributions to affect wages, promotions, and disciplinary actions, and such seems to be the case.”²¹